

### **REMARKS**

In view of the above amendments and the following remarks, favorable reconsideration of the outstanding office action is respectfully requested.

Claims 1-18 and 20-78 remain in this application. Claim 19 has been canceled. Applicant believes that no new matter is added to the application as part of this response.

#### **1. Amendments**

Claims 5-8, 10-14 and 16 have been rewritten to depend from claim 1. Claim 18 has been rewritten to include the limitations of claim 19. Claims 20-22 and 24 have been rewritten to recite from claim 18. Claims 27-32 have been rewritten to depend from claim 25. Claims 36-38 have been rewritten to depend from claim 34. Claims 46-50 and 52-53 have been rewritten to depend from claim 43. Claims 56-58 have been rewritten to depend from claim 54. Claims 59-62 have been rewritten to recite a method, as suggested by the Examiner. Claims 63 and 70 have been amended to recite that "m" is greater than "n". Claims 65-69 have been rewritten to depend from claim 63. Claims 72-74 have been rewritten to depend from claim 70.

#### **2. Claim Rejections - 35 U.S.C. §102 – WO 01/05724**

The Examiner has rejected claims 1-24, 43-53 and 60-78 under 35 U.S.C. §102(a) as being anticipated by International Publication WO 01/05724.

Claim 19 has been canceled, rendering moot the rejection thereof.

Independent claims 1, 18, 43, 63 and 70 each recite an oligomer formed from a reaction comprising a polyol having "m" hydroxyl functional groups, wherein "n" hydroxyl groups of said polyol are terminated in forming the oligomer, and wherein "m" is greater than "n". As such, the oligomer recited in these independent claims has a substantial content (i.e. "m - n" OH/polyol) of unterminated hydroxyl groups.

WO 01/05724 teaches the formation of oligomers by reaction of (A) a polypropylene glycol, (B) a polyisocyanate, and (C) a hydroxyl-group containing (meth)acrylate. 1.1 to 3 equivalents of isocyanate groups in the polyisocyanate and 0.1 to

1.5 equivalents of hydroxyl groups in the (meth)acrylate are used for each equivalent of the hydroxyl group in the polypropylene glycol. WO 01/05724, page 12, line 19. The Examples of WO 01/05724 show the reaction of stoichiometric equivalents of isocyanate and hydroxyl; as such, the hydroxyl groups of the polyol are substantially terminated in the oligomer forming reaction. Applicant notes that in making a conventional oligomer for an optical fiber, the skilled artisan will terminate all of the hydroxyl groups of the polyol, as is taught in WO 01/05724. WO 01/05724 does not teach or suggest the formation of an oligomer having a substantial content of unterminated hydroxyl groups.

The Examiner asserts that "since the prior art teaches the same compound as the applicants' the 'm' and 'n' values necessarily would be the same". Applicant submits that WO 01/05724 does not teach the same compound as the present application. In fact, one very significant difference between the oligomers taught in the present invention and those used in the publication is the difference between "m" and "n". In WO 01/05724, the polyol is fully terminated, so "m" = "n". In the oligomer recited in claims 1, 18, 43, 63 and 70, the polyol is not fully terminated, so "m" > "n".

Since WO 01/05724 does not teach or suggest an oligomer in which "m" > "n", Applicant submits that it does not anticipate independent claims 1, 18, 43, 63 and 70 of the present application. Claims 2-17, 20-24, 44-53, 64-69 and 70-78 depend ultimately from one of the above-listed independent claims, and are likewise believed not to be anticipated by WO 01/05724.

In rejecting claims 14-17 and 77-78, the Examiner has asserted "because the prior art teaches a radiation curable coating that is substantially the same as applicants, [the microbending properties claimed in claims 14-17 and 77-78] would necessarily be the same as applicants and is inherent." As described above, the coatings of the present invention are NOT substantially the same as those described in the publication; the oligomer hydroxyl content is very different in the coatings of the present invention than in the coatings described in the publication. As such, the microbending properties of the coatings of the present application are not inherent in the coatings of the publication.

The Examiner has rejected dependent claims 60-62 without rejecting the corresponding independent claim 54, and without giving a detailed reason for the rejections. While Applicant is unsure as to the grounds of rejection, it is submitted that

the publication does not teach or suggest an optical fiber coating having the beneficial microbending properties enabled by the present invention and claimed in claim 54.

Since claims 1-18, 20-24, 43-53 and 60-78 are not believed to be anticipated by WO 01/05724, Applicant requests that the Examiner withdraw the rejections thereof based on WO 01/05724 under 35 U.S.C. §102(a).

### **3. Claim Rejections - 35 U.S.C. §102 – Yamazaki**

The Examiner has rejected claims 1-9, 25-51 and 54-74 under 35 U.S.C. §102(a) as being anticipated by Yamazaki (EP 0 874 012).

Independent claims 1, 25, 43, 63 and 70 each recite an oligomer formed from a reaction comprising a polyol having “m” hydroxyl functional groups, wherein “n” hydroxyl groups of said polyol are terminated in forming the oligomer, and wherein “m” is greater than “n”. As such, the oligomer recited in these independent claims has a substantial content (i.e. “m” - “n” OH/polyol) of uncapped hydroxyl groups.

Yamazaki teaches a polyurethane (meth)acrylate oligomer obtained by subjecting (a) a polyisocyanate, (b) a polyol and (c) a methacrylate monomer containing a hydroxyl group to a urethanation reaction, wherein the ratio of NCO in (a) to OH in (b) is more than 3.0. Yamazaki p. 3, line 5-14. The NCO is in threefold excess of the OH in the urethanation reaction; therefore, virtually all of the polyol OH will be terminated in forming the oligomer (i.e., “m” = “n”). Yamazaki does not teach or suggest an oligomer having a substantial OH content, and therefore does not teach or suggest an oligomer having “m” greater than “n” as claimed in claims 1, 25, 43, 63 and 70. As such, Applicant submits that claims 1, 25, 43, 63 and 70 are not anticipated by Yamazaki. Claims 2-9, 26-32, 44-51, 54-62, 64-69 and 71-74 each depend ultimately from one of claims 1, 25, 43, 63 and 70, and are likewise not anticipated by Yamazaki.

Claim 33 recites a coated optical fiber a micro-bend attenuation as measured by the LLWM test of less than about 0.3 dB/m at a wavelength of 1310 nm, of less than about 0.35 dB/m at a wavelength of 1550 nm, and of less than about 0.55 dB/m at a wavelength of 1625 nm. The Examiner has asserted that “since the composition of the prior art is the same as applicants then all properties are the same as well and thus are inherent.” Applicant submits that, as described above, the composition of Yamazaki is

not the same as the composition of the present invention. For example, as described above, the oligomer hydroxyl content is very different in the coatings of the present invention than in the coatings described in the publication. As such, the microbending properties of the coatings of the present application are not inherent in the coatings of the publication. Claim 33 is therefore not anticipated by Yamazaki. Claims 34-42 depend ultimately from Yamazaki, and are likewise not anticipated by Yamazaki.

Since claims 1-9, 25-51 and 54-74 are not believed to be anticipated by Yamazaki, Applicant requests that the Examiner withdraw the rejections thereof based on Yamazaki under 35 U.S.C. §102(a).

#### 4. Conclusion

Based upon the above amendments, remarks, and papers of record, Applicant believes the pending claims 1-18 and 20-78 of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests reconsideration of the pending claims and a prompt Notice of Allowance thereon.

Applicant believes that no extension of time is necessary to make this Response timely. Should Applicant be in error, Applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. §1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to James V. Suggs at 607/974-3606.

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Respectfully submitted,

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